

b.) Amendments to the Claims:

Please add new Claim 7 and amend Claims 1-6 and as follows. The status of all the claims is listed below.

1. (Currently amended) An electron source manufacturing apparatus comprising:
 - (a) a support having a groove on its surface, which supports a substrate having a conductor formed thereon, wherein the support [[and]] has means a temperature adjuster for adjusting a temperature of the substrate;
 - (b) a vessel which has a gas inlet port and a gas exhaust port and covers part of the substrate;
 - (c) means a gas controller for introducing and exhausting gas into and from said vessel; and
 - (d) means a voltage applier for applying a voltage to the conductor, wherein
part of said support has a groove a periphery of a region where the conductor is formed on the substrate is arranged along the groove.

2. (Currently amended) An electron source manufacturing apparatus comprising:

- (a) a support having a groove on its surface, which supports a substrate having a plurality of conductors each comprising a pair of electrodes and a conductive film formed between the electrodes;

- (b) a vessel which covers part of the substrate;
- (c) ~~means a gas controller~~ for introducing and exhausting gas into and from a space defined by said vessel and the substrate; and
- (d) ~~means a voltage applier~~ for applying a voltage to each conductor, wherein

~~said support has a groove a periphery of a region where the plurality of conductors are formed on the substrate is arranged along the groove.~~

3. (Currently amended) An ~~electron source manufacturing~~ apparatus ~~comprising according to claim 1 or 2, wherein the groove is formed along a periphery of a region where the conductor is laid out:~~

- (a) ~~a support having a groove on its surface, which supports a substrate having a conductor formed thereon;~~
- (b) ~~a vessel which covers part of the substrate and which form a space including the conductor, wherein the space is defined by the vessel and the substrate; and~~
- (c) ~~a voltage applier for applying a voltage to the conductor, wherein a periphery of a region where the conductor is formed on the substrate is arranged along the groove.~~

4. (Currently amended) An apparatus according to ~~claim 1 or 2 any one of claims 1-3, wherein in which~~ the groove is substantially ~~rectangular~~ ~~rectangularly formed along a periphery of a region where the conductor is laid out.~~

5. (Currently amended) An apparatus according to ~~claim 3~~ any one of claims 1-3, ~~wherein one in which an inner~~ end of the groove is located ~~by~~ not less than 1 mm inward from the periphery.

6. (Currently amended) An apparatus according to ~~claim 3~~ any one of claims 1-3, ~~wherein the other in which an outer~~ end of the groove is located ~~by~~ not less than [[1]] 10 mm inward outward from the periphery.

7. (New) An electron source manufacturing apparatus comprising:

- (a) a support having a groove on its surface, which supports a substrate having a conductor formed thereon, wherein the support has a temperature adjuster for adjusting a temperature of the substrate;
- (b) a vessel which has a gas inlet port and a gas exhaust port and covers part of the substrate;
- (c) a gas controller for introducing and exhausting gas into and from said vessel; and
- (d) a voltage applier for applying a voltage to the conductor,

wherein
a periphery of a region where the conductor is formed on the substrate is arranged along the groove and between opposed walls of the groove.